South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 29, 2009

Mr. Gerardo Rios
Chief, Permits Office
US EPA, Region IX- Air 3
75 Hawthorne Blvd.
San Francisco, CA 94105

Dear Mr. Rios:

U.S. Govt. Dept. of Navy, (ID 800263, SIC code 9700) has proposed to revise their Title V permit by the proposing modifications for the following equipment found in Section H:

Application No.	Equipment	Device no.	Process/System
504366	Gasoline Storage	D211	1,5
504366	Gasoline Storage	D212	1,5
504366	Gasoline Storage	D213	1,5
504366	Gasoline Storage	D214	1,5
504366	Gasoline Storage	D215	1,5
504366	Gasoline Storage	D216	1,5
504366	Gasoline Dispensing	D217	1,5
504366	Gasoline Dispensing	D218	1,5
504366	Bulk Loading Arm	D222	1,5
504366	Bulk Loading Arm	D223	1,5

This proposed revision is a "De Minimis permit revision" to the Title V permit. Please review the attached draft Section H. Questions concerning changes to the permit should be directed to Mr. Roy Olivares at (909) 396-2208.

Very truly yours,

Michael D. Mills
Senior Manager
General Commercial and Energy
Team Engineering and Compliance

Attachments
CERTIFIED MAIL

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : NALF SAN CLEMENTE ISLAND (ID NO. 47651)					
System 5 : Fueling Stations					
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D211				D330.1, E193.1, J109.1, K67.9
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D212				D330.1, E193.1, J109.1, K67.9
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D213				D330.1, E193.1, J109.1, K67.9
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D214				D330.1, E193.1, J109.1, K67.9
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D215				D330.1, E193.1, J109.1, K67.9

* (1)(1A)(1B) Denotes RECLAIM emission factor
(2)(2A)(2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : NALF SAN CLEMENTE ISLAND (ID NO. 47651)					
STORAGE TANK, FIXED ROOF, GASOLINE, ABOVE GROUND, WITH SUBMERGED FILLING, 10000 GALS; DIAMETER: 8 FT; LENGTH: 28 FT A/N: 504366 Permit to Construct Issued: 01/01/10	D216				D330.1, E193.1, J109.1, K67.9
FUEL DISPENSING NOZZLE, GASOLINE, HEALY MODEL 400 ORVR (G-70-187) A/N: 504366 Permit to Construct Issued: 01/01/10	D217				C1.10, C1.11, D330.1, E193.1, J110.1, J373.3, K67.9
FUEL DISPENSING NOZZLE, GASOLINE, HEALY, MODEL 400 ORVR (G-70-187) A/N: 504366 Permit to Construct Issued: 01/01/10	D218				C1.10, C1.11, D330.1, E193.1, J110.1, J373.3, K67.9
LOADING ARM, GASOLINE, ONE HOSE WITH DRY BREAK CONNECT COUPLER FOR BOTTOM LOADER A/N: 504366 Permit to Construct Issued: 01/01/10	D222				C1.14, C1.15, J373.4, K67.9
LOADING ARM, GASOLINE, ONE VAPOR RECOVERY HOSE WITH CAMLOCK QUICK CONNECT COUPLER A/N: 504366 Permit to Construct Issued: 01/01/10	D223				C1.14, J373.4, K67.9

* (1)(1A)(1B) Denotes RECLAIM emission factor
(2)(2A)(2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5)(5A)(5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)
(9) See App B for Emission Limits
(10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: DEVICE ID INDEX

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	**Section H Page No.**	**Process**	**System**
D211	1	1	5
D212	1	1	5
D213	1	1	5
D214	1	1	5
D215	1	1	5
D216	2	1	5
D217	2	1	5
D218	2	1	5
D222	2	1	5
D223	2	1	5

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 5-4-1990]

DEVICE CONDITIONS

C. Throughput or Operating Parameter Limits

C1.10 The operator shall limit the gasoline dispensed to no more than 23000 gallon(s) in any one calendar month.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D217, D218]

C1.11 The operator shall limit the gasoline dispensed to no more than 276000 gallon(s) per year.

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D217, D218]

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

C1.14 The operator shall limit the gasoline dispensed to no more than 10000 gallon(s) in any one calendar month.

This condition applies to bulk unloading operations.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D222, D223]

C1.15 The operator shall limit the gasoline dispensed to no more than 120000 gallon(s) per year.

This conditon applies to bulk unloading operations..

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D222]

D. Monitoring/Testing Requirements

D330.1 The operator shall have a person that has been trained in accordance with Rule 461conduct a semi-annual inspection of the gasoline transfer and dispensing equipment. The first inspection shall be in accordance with Rule 461, Attachment B, the second inspection shall be in accordance with Rule 461, Attachment C, and the subsequent inspections shall alternate protocols. The operator shall keep records of the inspection and the repairs in accordance to Rule 461 and Section K of this Permit.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D211, D212, D213, D214, D215, D216, D217, D218]

E. Equipment Operation/Construction Requirements

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E193.1 The operator shall operate and maintain this equipment as follows:

ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.

[RULE 461, 3-7-2008]

[Devices subject to this condition : D211, D212, D213, D214, D215, D216, D217, D218]

J. Rule 461

J109.1 The operator shall use, except for diesel transfer, the phase I vapor recovery system in full operation whenever this equipment is in use. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 461, 3-7-2008]

[Devices subject to this condition : D211, D212, D213, D214, D215, D216]

J110.1 The operator shall use, except for diesel transfer, the phase II vapor recovery system in full operation whenever gasoline from this equipment is dispensed to motor vehicles as defined in Rule 461. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[RULE 461, 3-7-2008]

[Devices subject to this condition : D217, D218]

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

J373.3 The operator shall comply with the following gasoline transfer and dispensing requirements:

a). The Phase II vapor recovery systems shall be installed, operated, and maintained such that the maximum allowable pressure through the system including nozzle, vapor hose, swivels, and underground piping does not exceed the dynamic back pressures described by the California Air Resources Board (CARB) Executive Order by which the system was certified:

Nitrogen Flowrates (CFH)	Dynamic Back Pressure (Inches of Water)
60	0.35
80	0.62

Dynamic back pressure tests shall be conducted to determine the phase ii system vapor recovery back pressures. The tests shall be conducted in accordance with CARB test procedure tp-201.4, methodology 5; as a performance test and as a reverification test. Results shall be submitted to the AQMD, office of Engineering and Compliance, within seventy-two (72) hours of tests.

b.) A static pressure integrity test shall be conducted to demonstrate that the storage tanks, the remote and/or nozzle vapor recovery check valves, associated vapor return piping and fittings are free from vapor leaks. The test shall be conducted as outlined in exhibit 3 of CARB executive order G-70-187 as a performance test and as a reverification test. Results shall be submitted to the AQMD, office of Engineering and Compliance, within (72) hours of test.

c). If the CARB executive order requires the installation of a liquid removal device, a liquid removal rate test shall be conducted to demonstrate the removal of gasoline from the vapor passage of the coaxial hose. the test shall be conducted in accordance with CARB test procedure method TP-201.6 as a performance test and as a reverification test. Results shall be submitted to the AQMD, office of Engineering and Compliance, within seventy-two (72) hours of test.

d). A vapor return line vacuum integrity test shall be conducted to verify the vapor tightness of the Healy system. the test shall be conducted as outlined in exhibit 4 of CARB executive order G-70-187 as a performance test reverification test. results shall be submitted to the AQMD office of Engineering and Compliance, within seventy-two (72) hours of test.

The AQMD shall be notified by e-mail at r461testing@aqmd.gov or by facsimile at telephone number (909) 396-3606 at least seventy-two (72) hours prior to any of the above mentioned testing requirements. such notification shall include the name of the owner or operator; the name of the contractor; the location of the facility; and the scheduled start and completion dates of the tests to be performed.

The testing frequency for the above mentioned tests shall be conducted in accordance with the most recent AQMD Rule 461 amendment or CARB Executive Order requirements, whichever is more stringent.

e. A fillneck vapor pressure regulation fueling test shall be conducted to verify proper operation of the nozzle boot pressure regulation which is unique to the Healy model 400 ORVR nozzle. The test shall be conducted as outlined in exhibit 5 of CARB executive order G-70-187 as a performance test and as a reverification test.

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Results shall be submitted to the AQMD, office of Engineering and Compliance, within seventy-two (72) hours of the test.

[RULE 461, 6-3-2005]

[Devices subject to this condition : D217, D218]

J373.4 The operator shall comply with the following gasoline transfer and dispensing requirements:

THIS EQUIPMENT SHALL BE OPERATED FOR BOTTOM LOADING ONLY DURING THE TRANSFER OF GASOLINE FUEL FROM THE UNDERGROUND STORAGE TANK INTO ANY TANK TRUCK. ALL VAPOR RETURN LINES SHALL BE CONNECTED BETWEEN THE UNDERGROUND GASOLINE STORAGE TANK AND TANK TRUCK.

THE BULK LOADING TRANSFER EQUIPMENT SHALL BE OPERATED AND MAINTAINED SO THAT THERE ARE NO OVERFILLS, FACILITY VAPOR LEAKS, LIQUID LEAKS, OR LIQUID LEAKS FROM DISCONNECT OPERATIONS.

THE BULK LOADING EQUIPMENT SHALL BE OPERATED SO THAT THE BACKPRESSURE IN THE VAPOR RECOVERY SYSTEM DOES NOT EXCEED 18 INCHES OF WATER COLUMN PRESSURE.

THIS CLASS "B" LOADING FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH DISTRICT RULE 462.

THE BULK PLANT VAPOR RECOVERY SYSTEM SHALL BE CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD (CARB) AS REQUIRED IN DISTRICT RULE 462. THE COPY OF THE CARB BULK PLANT VAPOR RECOVERY CERTIFICATION TEST RESULTS SHALL BE RETAINED ON SITE AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.

THE BULK LOADING/UNLOADING EQUIPMENT SHALL NOT BE USED FOR LOADING MORE THAN 20,000 GALLONS PER DAY OF ORGANIC LIQUIDS HAVING A VAPOR PRESSURE OF 1.5 PSIA OR GREATER UNDER ACTUAL LOADING CONDITIONS.

RECORDS OF DAILY AND MONTHLY GASOLINE FUEL DISPENSED SHALL BE PREPARED AND MAINTAINED TO DETERMINE CLASSIFICATION OF THIS FACILITY IN ACCORDANCE WITH DISTRICT RULE 462.

[RULE 462, 5-14-1999]

[Devices subject to this condition : D222, D223]

K. Record Keeping/Reporting

FACILITY PERMIT TO OPERATE
U.S. GOVT, DEPT OF NAVY

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

K67.9 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

ALL RECORDS AND TEST RESULTS THAT ARE REQUIRED TO BE MAINTAINED BY RULE 461 AND RULE 462 SHALL BE KEPT ON SITE FOR FIVE YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.

RECORDS OF MONTHLY AND ANNUAL FUEL DISPENSED SHALL BE PREPARED, SHALL BE RETAINED ON SITE FOR FIVE YEARS, AND SHALL BE MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-4-2005; **RULE 461, 6-3-2005**; RULE 461, Hasstech Conditions, 1-9-2004; **RULE 462, 5-14-1999]**

[Devices subject to this condition : D211, D212, D213, D214, D215, D216, D217, D218, D222, D223]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	TOTAL PAGES:	PAGE NO.:
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	APPL. NO.	DATE
SSC DIVISION	See Below	12/29/2009
	PROCESSED BY	CHECKED BY
APPLICATION PROCESSING AND CALCULATIONS	RDO	

PERMIT TO CONSTUCT

APPLICANT	US NAVY, SAN CLEMETE ISLAND
MAILING ADDRESS	937 N. HARBOR DRIVE BOX 81 SAN DIEGO, CA 92132-0058
EQUIPMENT LOCATION	SAN CLEMENTE ISLAND

EQUIPMENT DESCRIPTION:

APPLICATION NO 501470 (D211, D212, D213, D214, D215, D216, D217, D218, D222 AND D223)

FUEL STORAGE, BULK LOADTING/UNLOADING, AND DISPENSING FACILITY **(SEE SEPARATE EVALUATION)**

APPLICATION NO. 504363

TITLE V APPLICATION

BACKGROUND:

These applications were filed on 12/17/2009 as a modification (previous A/N 501470). The applicant proposes to add a bulk loading station. There will be no change in the gasoline throughput, but will request 10000 gallons per month for bulk loading. There will be an increase of 0.58 pound day 30 day average for VOC.

In the Facility Permit ID#800263, additions are requested to Section H by addition of gasoling bulk loading/unloading arms. Attached is a draft of Section H in the Facility Permit affected by this addition.

This Title V modification is considered as a "de minimis significant revision" to the Title V permit because the increase of pollutant emissions do not exceed the threshold levels described District Rule 3005 (e)(1) .

Application no. 504366 was filed as a modification. The applicant proposes to increase the gasoline throughput to 10000 gallons per month for bulk loading. The increase in VOC 30 day average will be 0.58 lb/dy (see NSR section), thus Rule 1304 does apply.

PROCESS DISCRIPTION

See a/n 504336

CALCULATIONS

See a/n 504336

RULES EVALUATION:

Rule 212 :Does not apply

Rule 461 :See a/n 504336

Rule 462 :See a/n 504336

Rule X1 :See a/n 504336,

Reg. XIII Compliance with the following sections is anticipated.

1303 (a)-BACT- Complies, see a/n 504336

1303 (b)(1)- Does not apply for VOC emissions.

1303 (b)(2)- NOx, ROG, CO, PM10 and SOx

		30 day ave-lb/dy				
Item	A/n	NOx	ROG	CO	SOx	PM10
Gasoline dispensing & bulk loading	504366		+0.97			
total			+0.97			
Gasoline dispensing	501470		-0.81			
Change in emissions			+0.16			

There is an increase in VOC emission, but the emissions are less than 0.5 lb/by, but the previous application no. 501470 had a increase of 0.42 lb/dy (30 day ave went from 0.39 lb/dy to 0.81 lb/dy) and was granted P/O Sept of this year (did not require VOC offset since the emissions were below 0.5 lb/dy.

For this application no. 504366, there is a net increase of VOC emissions of 0.42 lb + 0.16 lb = **0.58** lb/dy 30 day ave (have to include the VOC increase from the previous application).

Rule 1401 :See a/n 504366

Regulation XXX

This facility (id# 800263) is included in Phase One of the Title V universe. The renewed Title V permit identified as A/N 437599 was issued on 2/2/2007. Therefore the proposed equipment is expected to comply with the following sections:

Rule 3005 (e)(1): The Title V expected permit revision caused by this equipment addition satisfies all the applicable conditions listed in this rule, it constitutes a de minimis significant permit revision (emissions increase less than the values listed in Table 1 of Rule 3000 (b)(6), see emissions total summary.

Rule 3003 The anticipated de minimis significant permit revision is expected to comply with all the applicable requirements in this rule, of special note are the sections listed below

Section (i)(4) A permit revision may be issued after the permit revision applications meets all conditions in this rule.

Section (j)(1)(A) The EPA Administrator will timely receive the de minimis significant revision upon completion of District evaluation.

Section (j)(1)(C) The EPA Administrator will timely receive the draft of the de minimis significant revision upon completion of District evaluation.

Section (j)(1)(D) The EPA Administrator will timely receive the final Title V permit upon issuance by the District

Section (j)(4)(A) The applicant will be timely notified of any refusal to accept all recommendations for the draft permit

Rule 3006 (a) Exempt per section (b).

RECOMMENDATIONS

Based on the analysis in this report, the equipment is expected to comply with the applicable Rules and Regulations of the SCAQMD and the applicable BACT requirements.

For this reason, the following disposition is recommended; issue a revised Title V Facility Permit reflecting modification of a gasoline fuel storage, bulk loading and dispensing system described under section H.

Updates in Section H of the Title V facility Permit resulting from this addition are listed in Equipment and Condition sections of the attached draft permit.

RECOMMENDATIONS

FOR THIS APPLICATION THE FOLLOWING DISPOSITION IS RECOMMENDED:

Issue P/C

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	APPL NO 504366	DATE 12/30/2009
APPLICATION PROCESSING AND CALCULATIONS	ENGINEER JM04	CHECK BY

EVALUATION REPORT FOR PERMIT TO CONSTRUCT

APPLICANT'S NAME: U. S. NAVY, SAN CLEMENTE ISLAND

MAILING ADDRESS: 937 N. HARBOR DRIVE
BOX 81, BUILDING 1, ROOM S510
SAN DIEGO, CA 92132-0058

EQUIPMENT LOCATION: NAVAL AUXILIARY LANDING FIELD
SAN CLEMENTE ISLAND

EQUIPMENT DESCRIPTION:

Bulk Loading/Unloading and Fuel Dispensing Facility, Consisting of:

1) 6 - GASOLINE ABOVEGROUND STORAGE TANKS, EACH CYLINDRICAL, STANDING HORIZONTALLY, 28' - 0" L. X 8' - 0" DIA., 10,000 GALLON CAPACITY, EQUIPPED WITH A PRESSURE/VACUUM RELIEF VALVE, AND A SUBMERGED FILL TUBE.

2) 2 - GASOLINE NOZZLES DISPENSING 2 PRODUCTS ON TANK TOP MOUNTED DISPENSERS, EQUIPPED WITH PHASE II VAPOR RECOVERY SYSTEM, HEALY MODEL 400 ORVR (G-70-187).

3) ONE POSITION TANK TRUCK LOADING SYSTEM CONSISTING OF:

   A) ONE GASOLINE HOSE WITH A DRY BREAK CONNECT COUPLER FOR BOTTOM LOADING.

   B) ONE GASOLINE VAPOR RECOVERY HOSE WITH A CAMLOCK CONNECT COUPLER.

HISTORY:

This application was submitted for a modification on December 17, 2009. The planned installation date will be as soon as the permit is granted. The modification is to add bulk loading and unloading equipment. The facility's proposed normal operating schedule is as follows: 24 hours/day, 7 days/week, 30 days/month and 52 weeks/year. This is a governmental fuel storage and bulk loading/unloading and dispensing facility. The facility has received two notices to comply (D17998, and D22945) and three notices of violation (P47605, P47644, and P53674). The applicant has since remedied these notices. An application, A/N 501470 was previously filed with the District for the fuel storage and dispensing equipment.

PROCESS DESCRIPTION:

This facility currently operates a fuel storage and dispensing facility (Rule 461), which was permitted under N25006. The applicant wishes to add bulk loading and unloading capabilities to this equipment. The gasoline will be transferred from the aboveground storage tanks and bottom loaded into a mobile fueler, which then transfers the fuel for their support vehicles and equipment requiring gasoline on the island. The applicant estimates that no more than 10,000 gallons per month would be used for bulk loading. The gasoline will also be directly pumped from the aboveground storage tanks into motor vehicles.

EMISSION CALCULATIONS FOR GASOLINE STORAGE AND DISPENSING (R461):

The hydrocarbon and benzene emissions from stroage tank filling and transfer operations are estimated by using appropriate emission factors summarized in the following table. These emission factors were developed by the District's Planning Division.

I. Emission Factos and Control Efficiencies

The following table summarizes the uncontrolled ROG emission factors in pounds per 1,000 gallons of gasoline throughput, benzene content of gasoline, and control effiencies:

Emission Factors and Control Efficiencies for Aboveground Tanks

Process Type	Uncon. ROG (lbs/1000 gal)	Benzene Content	Control Efficiency
Loading	8.400	0.3 wt%, Vapor	95%
Breathing	0.212	0.3 wt%, Vapor	75%
Refueling*	3.948	0.3 wt%, Vapor	96%
Spillage	0.420	1.0 wt%, Liquid	0%

*Assumes a more realistic 96% control efficiency for Phase II recovery system.

II. Calculations

The following equations are used for calculating ROG and Benzene emissions from gasoline. The emission factors have been modified from the CAPCOA ones to fit District specific assumptions:

Net Increased Throughput = Proposed throughput – Total permitted throughput prior to the modification or average throughput for the last two years

ROG, uncontrolled = EF (lbs – ROG/1,000 gals gas) x (Proposed gas throughput (1,000 gals/month)
ROG, controlled = ROG, uncontrolled x Control Efficiency

Benzene, uncontrolled = ROG, uncontrolled x Benzene Content in gasoline
Benzene, controlled = ROG, controlled x Benzene Content in gasoline

Total Emission Increase

Proposed Gasoline Throughput (Rule 461), (gals/month)	23,000
Average Gasoline Throughput (Rule 461), (gals/month)	23,000
Net Gasoline Throughput (Rule 461), (gals/month)	23,000

The total emissions are as follows:

For Storage and Dispensing of Gasoline (Rule 461)

Process Type	ROG, R1 (lbs/month)	ROG, R2 (lbs/month)	Benzene, R1 (lbs/month)	Benzene, R2 (lbs/month)
Loading	193.00	9.66	0.58	0.03
Breathing	4.88	1.22	0.01	0.00
Refueling	90.80	3.63	0.27	0.01
Spillage	9.66	9.66	0.10	0.10
Total ROG	298.54	24.17	0.96	0.14

EMISSION CALCULATIONS FOR BULK LOADING/UNLOADING (R462):

(See attachment memo for formula and calculations)

Process Type	ROG, R1 (lbs/month)	ROG, R2 (lbs/month)	Benzene, R1 (lbs/month)	Benzene, R2 (lbs/month)
Total ROG	96.20	4.81	0.31	0.02

SUMMARY OF EMISSIONS:

	Total ROG		Total Benzene	
	R1	R2	R1	R2
Monthly (lbs/month)	394.74	28.98	1.27	0.16
30-Day Average (lbs/day)	13.16	0.97	0.04	0.00
Hourly (lbs/hr)	0.55	0.04	0.00	0.00

CANCER RISK ASSESSMENT:

From gasoline storage and dispensing operations, benzene is the only toxic emittant that has significant effect to the maximum individual cancer risk (MICR). Using the CAPCOA provided risk values, the staff in the District's Planning Division prepared reference MICR's for different scenarios, i.e., for underground and aboveground tans, and for residence and workers. These MICR's are tabulated for different downwind distances from a permit unit that is located in West Los Angeles with an annual gasoline throughput of one million gallons.

Once a reference MICR is determined for a given downwind distance, it has to be adjusted by using the MET factor to reflect the meteorological conditions of a permit unit's location and the actual fuel throughput of a permit unit.
The following is the parameters used for calculating the MICR for this application. The distances are from the center of emission source to the nearest receptor areas:

Tank Type	Aboveground
Gasoline Throughput (mm gal – gal/yr)	0.396
Facility Zone	21
MET Factor	0.45
Downwind Distance to Residence (meters)	304
Downwind Distance to Workers (meters)	304

A reference MICR is determined for a given downwind distance in the following manner:

1. If the downwind distance is less than or equal to minimum pre-defined distance, use the MICR at the minimum distance.
2. If the downwind distance is greater than or equal to maximum pre-defined distance, use the MICR at the maximum distance.
3. Find MICRs two distances, i.e., one for nearest higher distance and the other one for nearest lower distance, and interpolate them.

MICR, ref = MICR, low + [(MICR, high – MICR, low)/(High Distance – Low Distance)]
*(Downwind Distance – Low Distance)

where,

MICR, ref	Reference MICR at a given downwind distance
MICR, low	MICR at a lower interpolate distance
MICR, high	MICR at a higher interpolate distance
Low Distance	Lower interpolate distance
High Distance	Higher interpolate distance
Downwind Distance	Given downwind distance

MICR (Aboveground Tanks)

MICR for Residences
Reference MICR [in-a-million/(1 mmgal – gal/year)]
= 0.087

Adjusted MICR (in-a-million)
(Reference MICR) x (MET factor) x (Annual Fuel Throughput)
= (0.087) x (0.45) x (0.396)
= 0.0155

MICR for Workers

Reference MICR [in-a-million/(1 mmgal – gal/year)]
= 0.018

Adjusted MICR (in-a-million)
(Reference MICR) x (MET factor) x (Annual Fuel Throughput)
= (0.018) x (0.45) x (0.396)
= 0.003

Calculation for Non-Cancer Health Effects:
The chronic and acute non-cancer health effects for benzene, xylene, and toluene are not being calculated. This is based on the CAPCOA Gasoline Service Station Industrywide Risk Assessment Guidelines, Appendix I, finding that the benzene cancer risk of ten in-a-million will be exceeded far sooner than the Hazard Index for benzene, xylene, or toluene.

Modeling Assumptions:
The modeling assumes the generic station operates 24 hours/day, with 80% of the emissions occurring between 6:00 AM and 8:00 PM, and the remaining 20% of the emissions occurring between 8:00 PM and 6:00 AM. In addition, the refueling and spillage emissions were modeled as volume sources and the loading and breathing emissions as point sources (Sample ISCST3 model input files for the generic retail station are documented in AQMD Industrywide Guidelines).

Risk Calculations:
The revised risk calculation for 1,000,000 gallons a year throughput for the different distances (20, 25, 30,...1000 meters) are based on the benzene inhalation cancer potency factor of 0.1/(mg/kg-day).

RULES EVALUATION:

Rule 212: There is no school located within 1,000-feet from this facility. The maximum individual cancer risk is less than ten-in-one million. Public notice is exempt.

Rule 461: The gasoline tanks are equipped with CARB Phase I vapor controls, which includes a pressure/vacuum relief valve and a submerged fill tube. The nozzles serving the gasoline tanks are equipped with Phase II vapor controls. Therefore, this facility complies with Rule 461.

Rule 462: This is a class "B" fueling facility. Equipment is expected to comply with the requirements for this type of facility.

Rule 1170: The facility does not have any underground storage tanks. Therefore, it is exempted from the provisions of this rule.

Rule 1401: The facility's MICR to the most sensitive area is 0.02 in-a-million. Furthermore, the gasoline storage tank and dispensing equipment are equipped with Phase I and Phase II vapor controls, respectively. These controls are considered to be T-BACT. Therefore, this facility complies with Rule 1401.

REG XIII: The emissions associated with this operation have been calculated to be 0.97 pound per day. No offsets are required since the facilty's PTE for ROG's is less than 4 tons/year. BACT requirements have been met with compliance with Rule 461 and Rule 462. No modelling was required for ROG's.

CONCLUSIONS & RECOMMENDATIONS:

This application is expected to comply with all applicable District Rules and Regulations. A Permit to Construct/Operate is recommended subject to the conditions as outlined in the sample permit.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

M E M O R A N D U M

Date: December 30, 2009

To: File

From: Randy Matsuyama, Air Quality Engineer

Subject: Attachment – Bulk Loading Calculations

$L_{(uncontrolled)} = (523.32) \times SPM/T$

Where,	L	=	Loading Loss (lb HC/1000 bbl loaded)
	P	=	Vapor Pressure (psia)
	M	=	Molecular Weight (lb/lb mole)
	T	=	Loading Temperature (degree R)
Given	S	=	1
	P	=	6.2 psia
	M	=	66 lb/lb mole
	T	=	530 degree R

Source: AP-42 (7/79), Pages 4.4-6 through 4.4-11

$L_{(uncontrolled)} = (523.32) \times (1)(6.2)(66)/530$
$L_{(uncontrolled)} = 404.04$ lb/1000 bbl

For A/N 504366, U. S. Navy, San Clemente Island

$L_{(uncontrolled)}$	=	(404.04 lb/1000 bbl) x (1 bbl/42 gal) x (10,000 gal/mo)
	=	96.20 lbs/mo
	=	3.21 lbs/day
	=	0.13 lb/hr
$L_{(controlled)}$	=	Multiply above values by 0.05
	=	4.81 lbs/mo
	=	0.16 lbs/day
	=	0.00 lb/hr